ABSTRACT OF THE DISCLOSURE

A process that allocates bits for quantizing spectral components in a perceptual coding system is performed more efficiently by obtaining an accurate estimate of the optimal value for one or more coding parameters that are used in the bit allocation process. In one implementation for a perceptual audio coding system, an accurate estimate of an offset from a calculated psychoacoustic masking curve is derived by selecting an initial value for the offset, calculating the number of bits that would be allocated if the initial offset were used for coding, and estimating the optimum value of the offset from a difference between this calculated number and the number of bits that are actually available for allocation.